

STATE OF NEW HAMPSHIRE
TRAINING PLAN FOR PUBLIC HEALTH
EMERGENCY PREPAREDNESS AND BIOTERRORISM



March 2005

Purpose

The purpose of the State of New Hampshire Training Plan for Public Health Emergency Preparedness and Bioterrorism is to provide a comprehensive structure to ensure education and training addresses core competencies for emergency preparedness and response to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies, hereinafter referred to as “all emergencies.”

Background

Events in recent years, such as the terrorist attacks on New York and Washington, D.C., episodes of anthrax exposure, and outbreaks of infectious diseases, both internationally and within New Hampshire, have demonstrated the need for a well-prepared and trained healthcare and traditional first responder workforce. Without preparation in the core competencies of emergency preparedness, the capacity of agencies and communities to respond to public health emergencies is less than optimal. Collaboration and partnership is required among federal, state, and local agencies, educational institutions and professional organizations to assure a systematic approach to training that will achieve an effective and sustained public health response.

In New Hampshire, collaboration among agencies and organizations is vital. New Hampshire has a population of approximately 1.2 million residents that are distributed over two (2) areas that present significant contrasts; a sparsely populated rural northern tier that includes an international border with Canada, and the more densely populated southern tier with a small seacoast area that is home to Seabrook nuclear power plant. In addition, the New Hampshire border is within approximately thirty (30) miles of Boston, a major metropolitan area. Finally, five (5) communities in western New Hampshire are in proximity to the Vermont Yankee nuclear power plant. The northern tier has a population with a lower average socioeconomic status and is relatively homogeneous with respect to cultural and racial indicators. The population is also scattered across small towns and communities, and has fewer health care professionals per capita. The more urban southern tier has rapidly expanding racial and ethnic minority populations, a greater number of problems common to metropolitan areas, and larger, more concentrated numbers of health care professionals. The logistics of providing education and training programs to overburdened health care professionals practicing in very different circumstances are enormously challenging.

In addition to health care professionals, another core component of effective emergency response is local health department staff. Within New Hampshire, there is no comprehensive system of local public health services, and only two cities, Manchester and Nashua, with comprehensive health departments. While each of the state’s 234 municipalities is required by law to have an appointed health officer, that individual is not required to have any formal public health qualifications or training. A survey of local health officers conducted in 2003 found 92% worked part-time on their health officer’s responsibilities. The median annual municipal public health budget reported was \$1,000 and the median salary was \$700¹. Because of the shortfalls in local public health capacity statewide, many of the core public health functions have been carried out through the New Hampshire Department of Health & Human Services (DHHS), the Department of Environmental Services, and the Department of Agriculture.

¹ 2003 NH Health Officer Survey, Community Health Institute, Concord, NH

The State of New Hampshire began funding regional community-based collaboratives in 2000 to develop models for improving local public health capacity. Expansion of the local public health infrastructure through the ongoing experience of collaboratives funded through the New Hampshire Turning Point Initiative and the DHHS' Division of Public Health Services has received wide endorsement from policy makers, elected officials, and other key stakeholders. These collaboratives, now known as the New Hampshire Public Health Network (PHN), involve broad, community based public health interests (e.g. elected officials, public sector agencies, health and social service agencies, schools, businesses and faith communities, among others) working together to address complex public health issues. Building on these successes, the New Hampshire PHN has continued to expand and now has fourteen regional collaboratives.

To ensure a collaborative approach for all emergencies preparedness and response, the DHHS is partnering with the Department of Safety and other key agencies. This partnership assures that New Hampshire residents will benefit from the resources and expertise of each agency.

The Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR) Strategic Plan for Public Health Workforce Development (1999), prepared in collaboration with the Health Resources and Services Administration (HRSA) and other federal, state, local, and academic partners, lists six (6) strategic elements that are essential for a systematic approach to preparing a competent public health workforce. These elements frame New Hampshire's training plan to address public health all emergencies preparedness and response. These elements are:

- Monitor workforce composition and identify target audience needs
- Identify required competencies and develop related curriculum
- Design an integrated learning delivery system
- Use incentives to assure competency
- Conduct evaluation and research
- Assure financial support coordination and accountability

Emergency Preparedness/Bioterrorism Training in New Hampshire

Goal

The goal of emergency preparedness/bioterrorism training in New Hampshire is to ensure that professional public health staff and the larger public health workforce in New Hampshire are adequately trained to respond to all emergencies in a coordinated, multi-disciplinary, multi-agency response. This goal will be met by a statewide continuing education and training system that will be:

- Built on standards to assure uniformity
- Linked to the training of other emergency response partners
- Able to flexibly respond to changing needs
- Sustainable
- Continuously evaluated and updated

Planning Assumptions

1. An effective state training plan must address the needs of multiple audiences, the use of multiple strategies, and the need for multiple partnerships to implement the strategies.
2. To establish a sustainable system for maintaining workforce competency, the state bioterrorism and public health emergency training plan must work to build partnerships/resources within the healthcare community, public health workforce, and public safety agencies.
3. There is a need for recognized, accepted standards for training of health care professionals. Public health education and training efforts should build upon existing models established by disciplines (i.e., medicine, nursing, environmental health, laboratory science, health education, health communications, healthcare administration). This requires collaboration and partnerships with professional organizations and accrediting bodies.
4. A coordinating force for training is required in order for agencies, organizations and disciplines to function effectively during an emergency, each with their own responsibility but coordinated to accomplish of the goal of mitigation and ensuring public health.
5. The planning process is dynamic. As this plan is refined and implemented, it must be regularly monitored and re-examined over time.

Strategies

1. Development of competency-based curricula, courses, and training programs that are:
 - Standardized by discipline and response roles
 - Sequential, from awareness level to advanced training
 - Using existing curriculum from national resources adapted, as necessary to New Hampshire needs
 - Responsive to critical capacities and performance goals established by the U.S. Centers for Disease Control and Prevention, the Health Resources and Services Administration, and the Department of Homeland Security.
2. Utilizing incentives, such as certification and credentialing, to assure both participation and quality.
3. Delivered in an effective, efficient, and accessible manner.
4. Tracking of individuals trained by geographic region, workforce sector, organization, discipline/response role and other relevant indicators through a learning management system.
5. Ongoing evaluation on the individual learner, course, and systems levels.
6. Formal links between training of public health/healthcare and other emergency response partners on the local, state and regional level that is evidenced in multi-agency drills, tabletops and exercises.
7. Maintenance and continued development of distinct, but interdependent, public health emergency response training infrastructures for public health and health care.

Priority Audiences

New Hampshire's public health workforce consists of public-sector employees working in local, county, state, and federal agencies. In addition, private-sector health professionals and others in hospitals, community based agencies and healthcare providers, and other health-related organizations are important contributors to our public health system. All of these individuals are critical to a timely, appropriate response to real or perceived emergencies that threaten the public's health. See Appendix A for more detailed definitions.

Public Health Professionals: This audience includes administrators and managers, physicians, mid-level practitioners, and allied health professionals, health educators, communication specialists, environmental scientists, epidemiologists, policy-makers, laboratory staff, local health officers, technical staff, information system specialists and support personnel (clerical, maintenance, security).

Health Care Professionals: This audience includes individuals working in health care facilities, clinics, provider organizations, emergency medicine, infectious disease, mental health, physicians, mid-level practitioners, and allied health professionals as well as administrators, technical and support personnel as appropriate. High-priority hospital personnel for training include emergency medicine physicians, emergency room nurses, other nursing staff, infectious disease physicians, infection control practitioners and administrators/technical support personnel as deemed appropriate. Other priority health care professionals include those working in school or community settings, such as school nurses and counselors, pharmacists, dentists, veterinarians, home health care providers and other direct service providers.

Emergency Responders: This audience includes traditional first responders such as emergency medical service providers, firefighters, and police. This audience would be involved in cross training with public health professionals based on identified needs specific to public health emergencies, which will ultimately enhance coordination and collaboration efforts. Other courses can be offered to this audience based on identified needs.

Strategies for Implementation

Approaches to public health emergency preparedness education should reflect crosscutting and interdisciplinary collaboration required in clinical and public health practice. Strategies should address training needs along the continuum of health professionals' career development. The training strategy will include different levels of training, while maintaining consistency in the knowledge base and establishing competencies in Bioterrorism and Emergency Preparedness. Strategies should include incentives for education credits, credentialing, and certificate programs.

Strategies for Implementation will include:

- Identification of needs and priorities within the target audiences
- Identification of competencies and content areas for target audiences
- Standardization of curriculum, courses, and programs that includes continuing education credits for coursework, and alignment with state and national certification or certificate programs
- Development of modules for both general and specific targeted audiences
- Utilization of existing curriculum from both local and national sources
- Utilization of existing agencies as vehicles for implementation
- Demonstration of proficiencies through multi-agency drills and exercises

Methods of Delivery

Delivery modalities to be used include:

- Traditional classroom instruction and lectures
- VHS/CD based instruction
- Web-based instruction (self-study)
- Web-based instruction (instructor led)
- Satellite/streaming video broadcasts
- “Train the Trainer” programs to provide classroom-style instruction in the field
- Exercises and drills
- Regional and statewide conferences

Evaluation Priorities

- Determine if priority target audiences are being reached
- Learners are mastering required competencies as evidenced by testing, certifications attained, and performance during drills and exercises
- Curricula, instructors, and delivery modalities are based on learner evaluations, certifications attained, and performance
- Training is having the desired impact on improving emergency response and workforce development in public health
- Pre and post tests to measure student’s mastery of competencies
- Course evaluations to measure learner satisfaction
- Drills and exercises to measure individual as well as organizational performance

Priorities for a Learning Management System

Recipients of federal funds are required to implement a learning management system (LMS) capable of collecting and receiving data on all training and educational activities. Critical capacities of an effective LMS include:

- Electronic dissemination of course announcements and other training opportunities
- Providing a user-friendly method of enrolling in courses and issuing continuing education credits
- Tracking of individual learners who attend conferences and trainings
- Tracking of competencies and certifications achieved by individual learners
- Track populations of learners by geographic region, organization, profession, job function and other relevant indicators
- Ability to offer web-based courses

Proposed Training Framework

The strategy for the training framework includes supporting three levels of proficiency, which are described below. As an example, a list of specific core competencies that all public health workers should attain is included. See Appendix B for a complete listing of core competencies for specific disciplines.

Levels of Training

Level I (100 Level courses)

This level provides an overview of, and introduction to, the issues and challenges in preparing for an “all emergencies” event. In light of the requirements set forth in training assumptions, strategies, and guidance, these courses are intended to provide an introduction to basic terms, issues, and provide a consistent knowledge base for all public health workers at the state and community level. The competencies in Level I reflect the nine (9) core competencies that have been identified by CDC for all public health workers.

The following are the required competencies for all public health workers:

- **Core Competency 1.** Describe the public health role in emergency response in a range of emergencies that might arise.
- **Core Competency 2.** Describe the chain of command in emergency response.
- **Core Competency 3.** Identify and locate the agency emergency response plan (or the pertinent portion of the plan).
- **Core Competency 4.** Describe functional role(s) in emergency response and demonstrate role(s) in regular drills.

- **Core Competency 5. Demonstrate** correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.).
- **Core Competency 6. Describe** communication role(s) in emergency response:
 - Within the agency using established communication systems
 - With the media
 - With the general public
 - Personal (e.g. family, neighbors)
- **Core Competency 7. Identify** limits to own knowledge/skill/authority and key system resources for referring matters that exceed these limits.
- **Core Competency 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command).
- **Core Competency 9. Apply** creative problem solving and flexible thinking to unusual challenges within functional responsibilities and **evaluate** effectiveness of all actions taken.

Level II (200 Level courses)

These courses build and expand on the knowledge acquired through the Level I courses. These courses are designed for public health professional staff at both the state and community level. Level II includes courses for both clinical and non-clinical staff. Such offerings will include Principles of Crisis and Risk Communication, Bioterrorism Agents, Chemical Radiological Agents, and Legal Aspects in Public Health Emergency Response. These courses will offer “cross training” opportunities for public health staff and multidisciplinary training with emergency response/community partners.

Level III (300 Level courses)

Level III courses provide in-depth performance-based application training designed for specific disciplines and reflect the specific responsibilities a job function would have during an emergency. Upon course completion, the learner will have to demonstrate an ability to apply what he or she has learned. Courses include the Laboratory Training series, Emergency Response Planning, Quarantine and Isolation, Environmental Health and more in-depth courses in Epidemiology and Surveillance.